Hustler Model 50 22” Walk Behind Greens Mower Owner’s Manual

Hustler Turf Equipment

P.O. Box 7000

Hesston, Kansas

67062-2097

111132_0409

⚠ WARNING: ⚠

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

NOTICE OF REQUIREMENT OF SPARK ARRESTER MUFFLER

This equipment may create sparks that can start fires around dry vegetation. California Public Resources Code Section 4442.6 provides that it is unlawful to use or operate an internal combustion engine on any forest-covered, brush-covered, or grass-covered land unless the engine is equipped with a spark arrester maintained in effective working order. A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service. Other states or federal areas may have similar laws. The Operator Should Contact Local Fire Agencies For Laws or Regulations Relating to Fire Prevention Requirements. THIS EQUIPMENT DOES NOT HAVE A SPARK ARRESTER AND YOUR SHOULD CONTACT YOUR AUTHORIZED HUSTLER DEALER FOR THE PURCHASE OF A SPARK ARRESTER.

Inspect spark arrester daily; replace every 500 hours or as needed.

The Engine Owner's Manual provides information regarding the U.S. Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance and warranty.

Keep Engine Owner's Manual with your unit. Should the Engine Owner's Manual become damaged or illegible, replace immediately. Replacements may be ordered per the information found in the Product Information section of the owner's manual.

GENERAL INFORMATION

This manual applies to the following Hustler equipment line:

Hustler Model 50 (22")
Walk Behind Greens Mower

To the new owner

The purpose of this manual is to assist owners and operators in maintaining and operating the Hustler Model 50 Greens Mower. Please read it carefully; information and instructions furnished can help you achieve years of dependable performance.

A separate Engine Owner's Manual is included with your owner's packet which contains additional engine information that will not be repeated in this manual. You are urged to read it before attempting any operation or repair of the engine.

It is the **owner's responsibility** to make certain that the operators and mechanics read and understand this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operators and mechanics are qualified and physically able individuals, properly trained in the operation of this equipment. All operator and mechanics must become familiar with the safe operation of the equipment, operator controls and safety signs.

Never let children or untrained people operate or service the equipment. Local regulations may restrict the age of the operator.

IMPORTANT: For more detailed maintenance and adjustment information refer to the proper parts manual for your machine. Refer to the *"Product Literature"* section of this manual for ordering information.

The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Using this manual

General operation, adjustment and maintenance guidance is outlined for both the experienced and novice Hustler user. Operating conditions vary considerably and cannot all be addressed individually. Through experience, however, operators should find no difficulty in developing good operating skills suitable to most conditions.

Directions used in this manual, for example RIGHT or LEFT, refer to directions when seated on tractor facing forward, unless otherwise stated.

Photographs and illustrations used were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. Hustler Turf Equipment reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been made to your machine which is not reflected in this owner's manual, or the parts manual, see your Hustler dealer for current information and parts.

Warranty registration

The Delivery and Warranty Registration form must be completed and signed to validate your warranty protection. As the new equipment owner, you are expected to see that the form is completed and forwarded to Hustler Turf Equipment at time of delivery.

Be sure to register the machine plus each attachment that displays a model and serial identification number plate with Hustler Turf Equipment.

IMPORTANT: Any unauthorized modification, alteration, or use of non-approved attachments voids the warranty and releases Hustler Turf Equipment from any liability arising from subsequent use of this equipment.

Model and serial number

Tractor model and serial numbers are found on the serial identification plate, located on the rear of the frame directly below the engine.

These numbers are required on the Warranty Registration form. They will also assure you of the correct service parts when replacement becomes necessary.

Parts and service

Use original Hustler replacement parts only. These parts are available through your local Hustler dealer. To obtain prompt, efficient service, always provide the following information when ordering parts:

1. Correct part description.
2. Correct model number.
3. Correct serial number.

All warranty repair and service must be handled through an authorized Hustler dealer. Arrangements should be made through your local service center.

HUSTLER MODEL 50 (22”) WALK BEHIND GREENS MOWER
THREE YEAR LIMITED WARRANTY

WHAT IS COVERED BY THIS WARRANTY

Hustler Turf Equipment, makes the following warranty to the original purchaser only:

a. Three Year: Hustler Turf Equipment Model 50 (22”) Walk Behind Greens Mowers are warranted for **three (3) years from date of delivery** on all materials and workmanship.

If the Purchaser discovers within this warranty period a defect in materials or workmanship:

- He must promptly notify Hustler Turf Equipment, or an authorized dealer, in writing of the defect. In no event shall such notification be received by Hustler Turf Equipment, or an authorized dealer later than thirty-six (36) months from date of delivery.
- Within a reasonable time after such notification, Hustler Turf Equipment, will correct any defect in material or workmanship on the Hustler Turf Equipment, by repairing or replacing part(s) with either new or used replacement parts.
- Such repair, including parts and labor shall be at the expense of Hustler Turf Equipment, and,

b. The engine is covered by a two (2) year limited warranty, by the engine manufacturer, to the original owner (commercial or residential) only, and,

WHO MUST PERFORM THE WARRANTY SERVICE

All warranty service will be performed by dealers authorized by Hustler Turf Equipment. **Service calls and/or transportation expense** of the product to and from the authorized dealer, for warranty work, will be paid by the owner of the product. For warranty service contact an authorized dealer or write Hustler Turf Equipment, 200 South Ridge Road, Hesston, Kansas 67062, or call 1-620-327-4911.

WHAT IS NOT COVERED BY THIS WARRANTY

Hustler Turf Equipment, does not warranty:

- Some product, components or parts not manufactured by Hustler Turf Equipment
- Repairs made by unauthorized persons
- Damage caused by use of the Hustler Turf Equipment for purposes other than those for which it was designed
- Damages caused by disasters such as fire, flood, wind, and lightening
- Damages caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, negligence or misuse
- Repairs or replacement resulting from the use of unauthorized parts, accessories or attachments
- Repairs or replacement as the result if any alterations or modifications, in the determination of Hustler Turf Equipment, which adversely affects the operation, performance or durability of the equipment.
- Hustler Turf Equipment which has the serial number removed or made illegible
- Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow the product’s owner’s manual operating, maintenance and adjustment instructions or other operational instructions provided by Hustler Turf Equipment.
- Normal maintenance parts and service including, but not limited to, filters, fuel, lubricants, tune-up parts, belts, reels, bedknife, reel sharpening, bearings, brake adjustments
- Repairs necessary due to improper fuel, contaminates in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months

DISCLAIMER OF WARRANTY

The foregoing warranties are in lieu of all other warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. However, if the Hustler Turf Equipment is purchased as a consumer product, any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

LIMITATION OF REMEDIES

In no case shall Hustler Turf Equipment, be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.

Such damages include, but are not limited to:

- Loss of profits
- Loss of savings or revenue
- Loss of use of Hustler Turf Equipment or any associated equipment
- Cost of capital
- Cost of any substitute equipment, facilities, services or downtime
- The claims of third parties including customers, and injury to property

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

TIME LIMIT

Any action for breach of warranty must be commenced within twenty-five (25) months following delivery of the goods in a **residential application.** Any action for breach of warranty must be commenced within 120 days following delivery of the goods in a **rental application.**

NO OTHER WARRANTIES

Unless modified in writing, signed by both parties, and approved by the President of Hustler Turf Equipment, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee of

Hustler Turf Equipment, or any other party is authorized to make any warranty in addition to those made in this agreement.

ALLOCATION OF RISKS

This agreement allocates the risks of product failure between Hustler Turf Equipment, and the purchaser. This allocation is recognized by both parties and is reflected in the price of the goods.

OWNER'S RESPONSIBILITY

You must maintain your Hustler Turf Consumer Product following the maintenance procedures described in your owner's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

This machine like any other powered equipment is potentially dangerous unless properly operated. Any operator **must** be cautious and keep safety in mind at all times. Any operator, prior to using the Hustler Turf Equipment, should thoroughly familiarize himself with the owner's manual regarding operation and safety of the machine, as well as all safety warnings on the machine itself.

WARRANTY REGISTRATION

1. **Dealers must** register the unit on-line at www.Hustlerdealer.com or by filling out the Warranty registration form, provided in the owner's packet. If using the Warranty registration form it MUST be completed and signed by the authorized dealer and original purchaser.
2. For validation, the completed Warranty registration form MUST be forwarded to Hustler Turf Equipment, within ten (10) days following date of purchase.
3. The date of purchase constitutes delivery.

SAFETY PRECAUTIONS

This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of **PERSONAL SAFETY** for operators and other persons during the normal operation and servicing of this equipment.

DANGER – denotes immediate hazards which **WILL** result in severe personal injury or death.

WARNING – denotes a hazard or unsafe practice which **COULD** result in severe personal injury or death.

This manual uses two other words to highlight information. **IMPORTANT** calls attention to special mechanical information and **NOTE:** emphasizes general information worthy of special attention.

All operators should read this manual, or be instructed about safe operating and maintenance procedures. This is the owner's responsibility.

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert ▲ symbol, which means DANGER or WARNING - "personal safety instructions." Failure to comply with the instructions may result in personal injury or death.

Incorrect usage of this machine may result in severe injury. Personnel operating and maintaining it should be trained in the proper use and should read the manuals completely and thoroughly before attempting to set-up, operate, adjust, or service this machine.

It is the **owner's responsibility** to make certain that the operators and mechanics read and understand this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operators and mechanics are qualified and physically able individuals, properly trained in the operation of this equipment. All operators and mechanics must become familiar with the safe operation of the equipment, operator controls and safety signs. Local regulations may restrict the age of the operator.

The owner should also ensure that the operator/mechanic know that they are responsible for their own safety as well as the safety of other persons within the vicinity. **Remember,** the operator is responsible for accidents or hazards occurring to other people or their property.

Safety and Instruction Decals

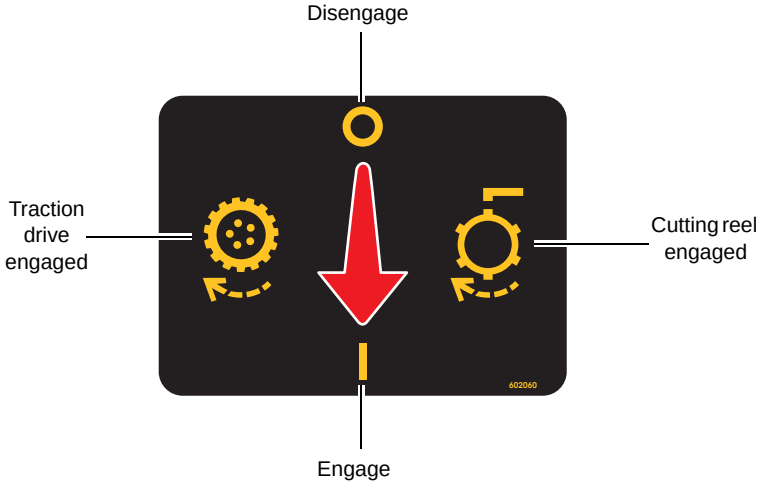
▲ Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. These decals should not be removed or obliterated. Replace them if they become non-readable.

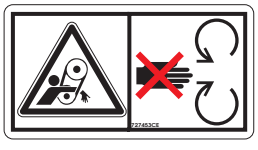
The following illustrations show the various **safety decals** that are located on the machine. A brief explanation is shown to help the operator understand the meanings of these decals.

Read Owner's Manual and decals before attempting to operate this machine.

WARNING:
Hot surface!

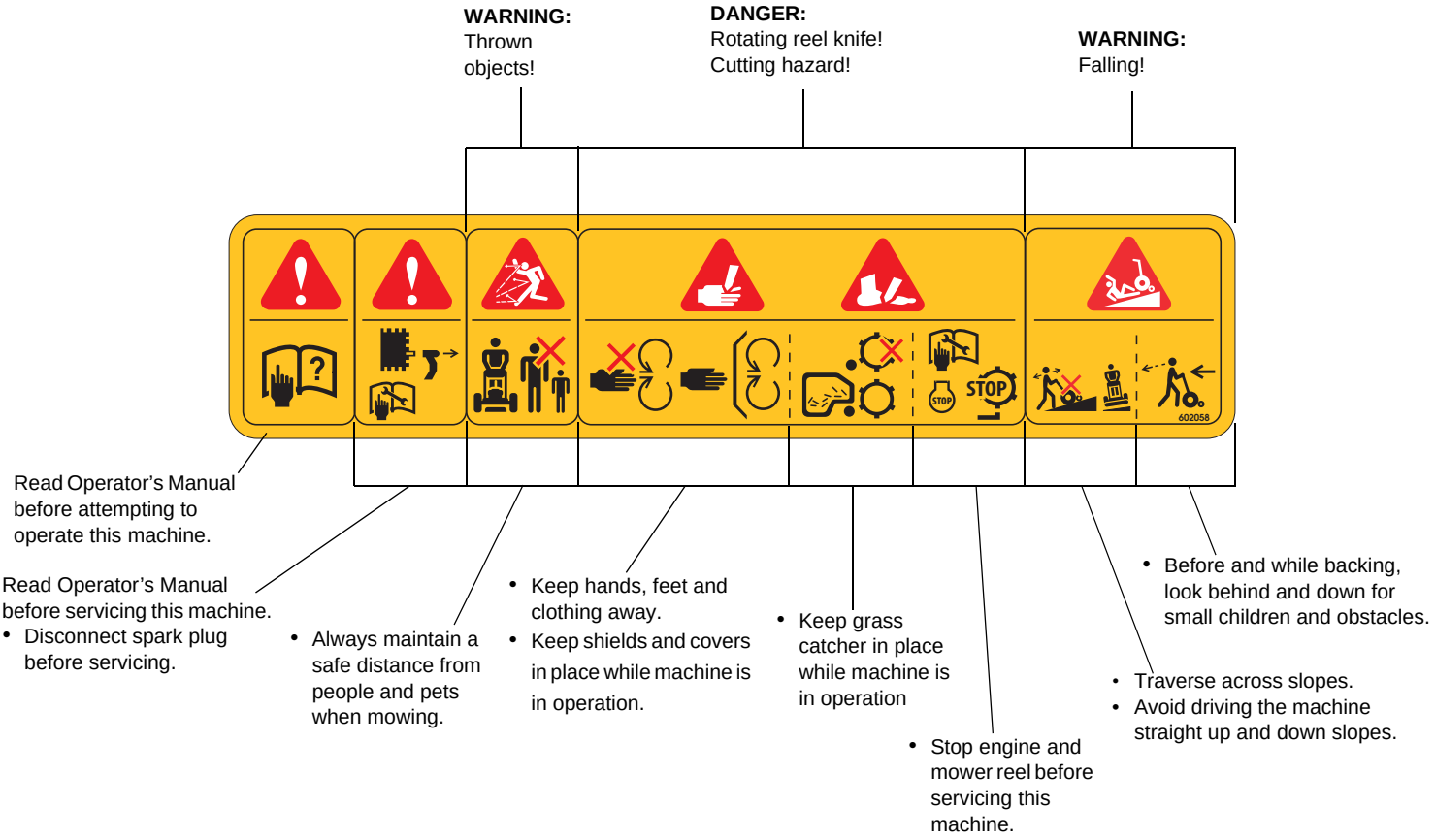
- **Avoid skin contact with hot surface**

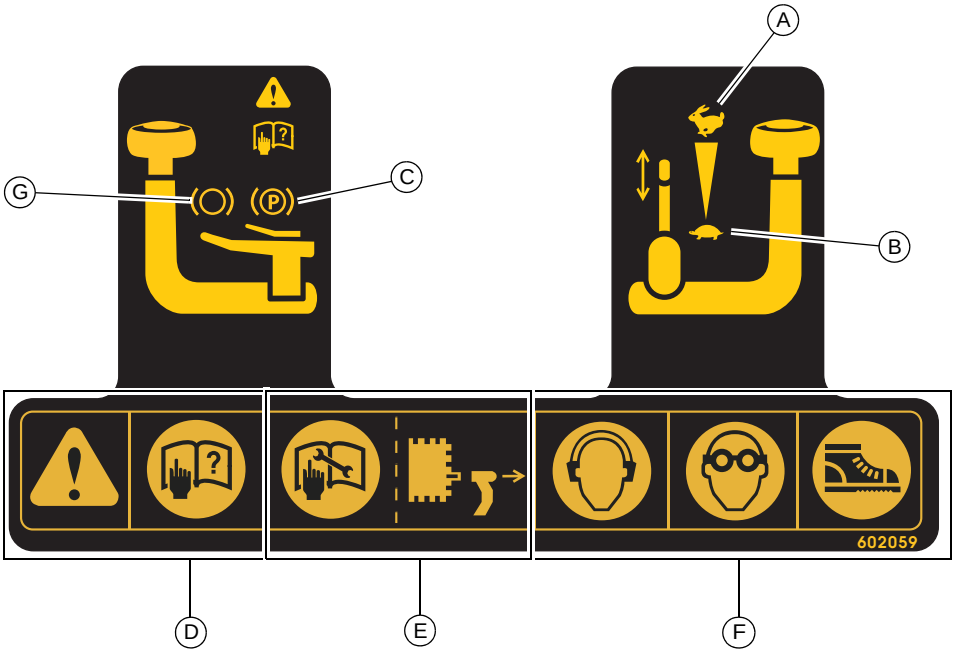




- Keep hands, feet and clothing away.
- Keep shields or covers in place while machine is in operation.

DANGER:
Rotating pulleys and belts!


WARNING:
Thrown objects!
DANGER:
Rotating reel knife!
Cutting hazard!
WARNING:
Falling!
602058
Read Operator's Manual before attempting to operate this machine.
Read Operator's Manual before servicing this machine.
• Disconnect spark plug before servicing.
• Always maintain a safe distance from people and pets when mowing.
• Keep hands, feet and clothing away.
• Keep shields and covers in place while machine is in operation.
• Keep grass catcher in place while machine is in operation
• Stop engine and mower reel before servicing this machine.
• Traverse across slopes.
• Avoid driving the machine straight up and down slopes.
• Before and while backing, look behind and down for small children and obstacles.



A. Fast
B. Slow
C. Park brake
D. Read Operator's Manual before attempting to operate this machine.
E. Read Operator's Manual before attempting to service this machine. Disconnect spark plug before servicing
F. Wear ear protection, eye protection and safety shoes when operating this equipment.
G. Service brake

WARNING
Gasoline is highly flammable and explosive.
Turn engine off and let cool before refueling.
The engine emits toxic carbon monoxide.
Do not run in an enclosed area.
Read Owner's Manual before operation.

WARNING:
Fire!

- **Do not smoke while refueling.**
- **Do not remove the fuel tank cap or fill with engine running or while the engine is hot.**
- **Allow engine to cool before storing machine inside a building.**
- **Store away from open flame or spark if there is fuel in tank.**
- **Clean up any gasoline spills.**

WARNING:
Carbon monoxide poisoning

- **Never run the engine in an enclosed area unless exhaust is vented to the outside. Exhaust gases contain carbon monoxide which is an odorless and deadly poison.**

Read owner's manual before operating

WARNING

FAILURE TO FOLLOW SAFE OPERATING MAY RESULT IN INJURY.

1. **Read operator's manual.**
2. **Keep guards and safety devices in place and working.**
3. **Wait for all movement to stop before servicing machine.**
4. **Keep hands and clothing away from rotating blades and belts.**

WARNING!

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrestor may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

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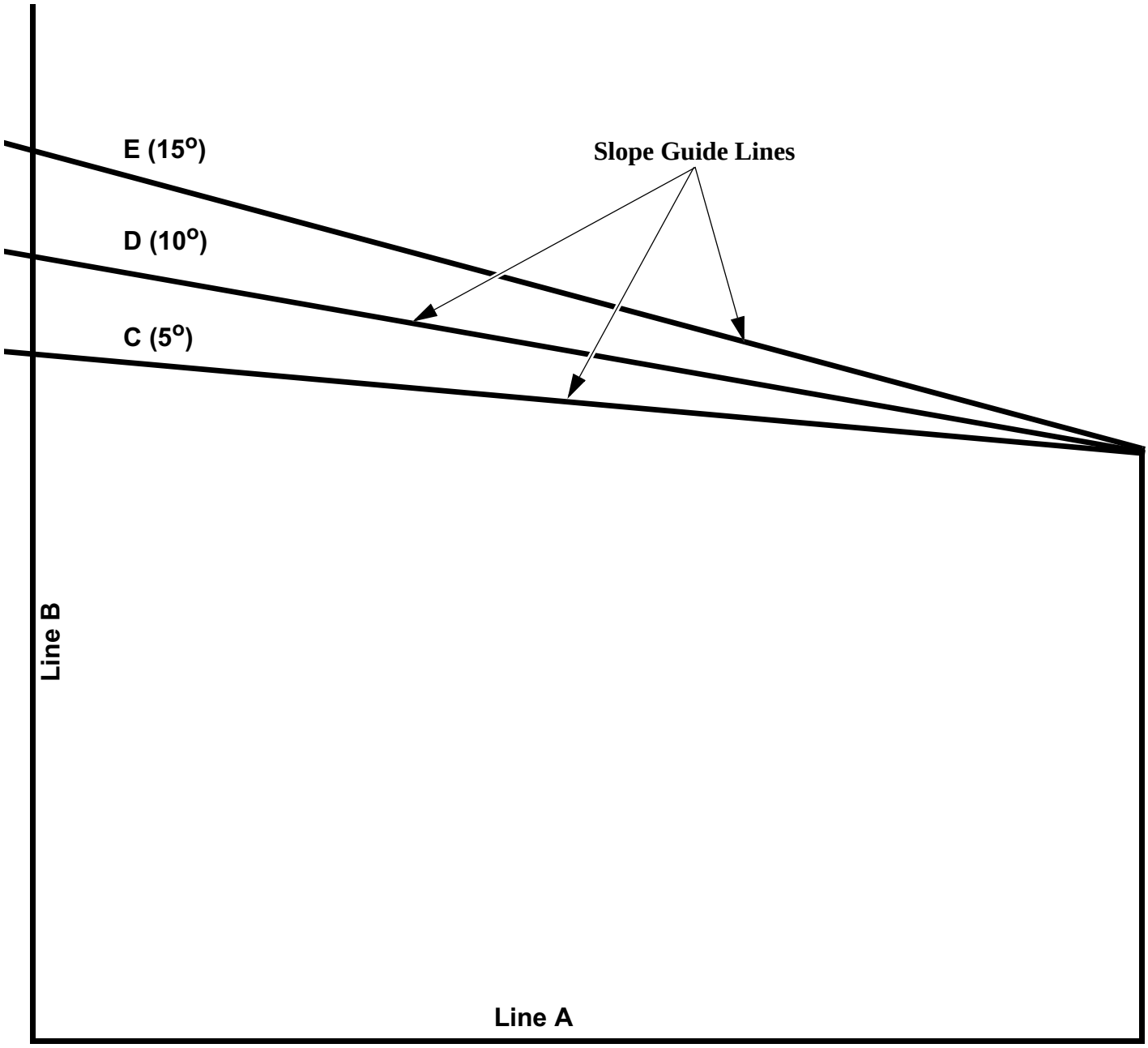
WARNING
AVOID INJURY FROM ROTATING BLADES
1. Keep hands and feet away from rotating blades.
2. Shut off engine before servicing or lubricating.

SLOPE GUIDE

Use this diagram when determining the degree of slope to be mowed.



1. Hold this sheet of paper in front of you. Make sure that Line A is horizontal.
2. Align Line B with a vertical surface such as pole, tree or building.
3. Fold the paper along the slope guide lines (C, D or E).
4. Align the closest slope guide line with the ground slope. This will give you a close estimation of the ground slope

OPERATION

Safe Operating Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Operation

- ▲ Never leave a running machine unattended. Always disengage transmission drive, cutting reel drive, and stop engine when leaving the unit. Wait for engine and all moving parts to come to a complete stop before leaving the machine for any reason.
- ▲ Do not change the engine governor setting or overspeed the engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- ▲ Always keep safety shields and covers in place, except for servicing.
- ▲ Always maintain a safe distance from people and pets when mowing. Always stop machine if someone enters the area.
- ▲ Always operate machine in daylight or with adequate working lights.
- ▲ Follow daily and weekly checklists, making sure all hardware is tightened.
- ▲ Always observe traffic laws while driving machine from one location to another. Watch for traffic when operating near or crossing roadways.
- ▲ Use care when approaching blind corners, shrubs, trees or other objects that may obscure vision.
- ▲ Using this machine demands attention. To prevent loss of control:
  - Do not drive close to sand traps, ditches, creeks, or other hazards.
  - Reduce speed when making sharp turns. Avoid sudden stops and starts.
  - When near or crossing roads, always yield the right-of-way.
  - Apply, the service brakes when going downhill to keep forward speed slow and to maintain control on the machine.
- ▲ Always keep engine and machine clean, removing accumulated dirt, trash and other material from machine. Clean up oil or fuel spillage. Allow machine to cool before storing.
- ▲ Inspect area to be mowed for hazards such as rocks, metal objects and other debris which may be thrown or entangled by cutting reel. Remove these objects before mowing.
- ▲ Always be alert for hazards such as rocks, metal objects and other debris which may be thrown or entangled by cutting reel. Watch out for holes or deep depressions.
- ▲ Always wear adequate ear protection, such as earplugs, when operating this equipment as prolonged exposure to uncomfortable or loud noises can cause impairment or loss of hearing. Do not wear radios or music headphones while operating the machinery. Safe operation requires your full attention.
- ▲ Do not operate the equipment while wearing sandals, tennis shoes, sneakers, shorts or any type of loose fitting clothing. Do not use a towel as a headband or neck wrap and do not hang towel from the waist. Long hair, loose clothing or jewelry may get tangled in moving parts. Always wear long pants, safety glasses, ear protection and safety shoes when operating this machine.
- ▲ Always wear safety goggles or safety glasses with side shields when operating the mower.
- ▲ Always inspect machine for damage after striking a foreign object. If damage is found, repair machine immediately. Be sure to stop on level ground, always disengage transmission drive, cutting reel drive, stop engine, and remove ignition key when leaving the unit. Wait for engine and all moving parts to come to a complete stop before leaving the machine for any reason.
- ▲ Always be aware of what is behind the machine before backing up.
- ▲ Never operate a poorly maintained machine.
- ▲ Make sure all fasteners and mounting hardware are tightly assembled to basket.
- ▲ Inspect grass catcher daily for wear or cracks and make sure it is mounting properly and in good condition.
- ▲ Do not operate without entire exhaust system in place and in proper working condition.
- ▲ Never attempt high speed maneuvering, especially in crowded or congested areas.
- ▲ Never allow persons to operate this machine without proper instruction or allow children to operate machine. Allow only responsible adults who are familiar with these instructions to operate this machine.
- ▲ Never put hands or feet under any part of the machine while it is running.
- ▲ Never carry passengers. They can be struck by foreign objects or fall off machine and be seriously injured. They can interfere with the safe operation of the machine.
- ▲ Never direct discharge of material from mower towards bystanders. Do not operate the mower without grass catcher in place.
- ▲ Always disengage the cutting reel and wait for it to stop before crossing gravel drives, walks or roads..
- ▲ Always keep clear of the cutting reel during operation.
- ▲ Slow down and use caution when making turns and crossing roads and sidewalks. Stop reel if not mowing.
- ▲ Stop the engine before removing the grass catcher. Turn off the engine and be sure the cutting reel has stopped before cleaning. **Never use your hand to clean the cutting reel area!**
- ▲ Do not operate the machine if you are fatigued, sick or while under the influence of alcohol or drugs, you are pregnant or under 18 years old. Local regulations may restrict the age of the operator.
- ▲ Exercise caution when loading or unloading the machine onto a trailer or truck.
- ▲ Data indicates that operators, age 60 years and above, are involved in a large percentage of mower-related injuries. These operators should evaluate their ability to operate

the mower safely enough to protect themselves and others from serious injury.

- ▲ **Never cover the machine with a tarp or cover of some type until the engine and muffler have cooled.**
- ▲ **Clean flammable material from machine. Prevent fires by keeping the top of the unit, engine compartment and exhaust area clean of accumulated trash, grass clippings, and other debris. Always clean up spilled fuel and oil.**

Slope operation

Slopes are a major factor in loss-of-control and tip-over accidents, which can result in severe injury or death. All slopes require extra caution. If you feel uneasy on it; do not mow it.

- ▲ Use extreme caution when operating on slopes.
  - Be extremely careful changing directions on a slope. Slow down.
  - Do not operate where the machine could slip or tip.
- ▲ Always be sure of your footing. Keep a firm hold on the handle and walk - never run.
- ▲ Block or chock the machine when parked on a slope or when trailering.
- ▲ Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- ▲ Remove obstacles such as rocks, tree limbs, etc.
- ▲ Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction.
- ▲ Avoid starting and stopping on a slope. If traction is lost, disengage the cutting reel drive and proceed slowly straight down the slope.
- ▲ Never operate the machine on a slope fro a position below the mower!
- ▲ Do not mow near drop-offs, ditches, or embankments. The machine could suddenly turn over if a wheel goes over the edge of a cliff or ditch, or if an edge caves in.
- ▲ The Model 50 Greens Mower is capable of driving on slopes up to **15 degrees, when the transport wheels are attached.** Be aware of any conditions that may cause the transport wheels to lose traction resulting in possible loss of control of the machine. Operators should not operate on a slope until they are thoroughly familiar with the equipment.

  Do not attempt to transport or operate the mower without the transport wheel on slopes greater than 10 degrees.

  Do not operate on slopes greater than 15 degrees. Refer to Slope Guide, page 2-5, when determining the degree of slope to be mowed.

  If loss of traction is detected, when operating on a slope, cautiously drive the machine off the slope. Wait until the condition that caused the problem is resolved before attempting to operate on the slope again.

  Terrain conditions can affect traction resulting in possible loss of control of the machine. Some of the conditions to be aware of are:

  1. Wet terrain
  2. Depressions in the ground; i.e. holes, ruts, washouts
  3. Mounds of dirt
  4. Soil type; i.e. sand, loose dirt, gravel, clay
  5. Grass type, density, and height
  6. Extremely dry conditions of grass

  Another consideration to safe mowing on slopes is to be aware of what is located at the bottom of the slope. Extreme caution should be used when there is a hazard located at the bottom of the slope. Some examples are:

  1. Water; i.e. lake, river
  2. Cliffs, retaining walls
  3. Roads, highways
  4. Buildings
  5. Rocks

  These are just a few examples of situations when caution must be used when operating on a slope. There are many other possibilities too numerous to mention. Just remember to always exercise extreme caution when operating on any slope.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

- ▲ Never leave machine unattended with ignition key in switch, especially with children present.
- ▲ Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- ▲ Be alert and turn the machine off if children enter the area.
- ▲ Before and while backing, look behind and down for small children.
- ▲ Never carry children, even with the cutting reel off. They may fall off and be seriously injured or interfere with safe machine operation.
- ▲ Never allow children to operate the machine.
- ▲ Use care when approaching blind corners, shrubs, trees, the end of a fence or other objects that may obscure vision.

Controls

A. Ignition switch (Fig. 3-1) — This two position switch allows the operator to shut the engine off at the operating position. The RUN position allows the engine to be started and to run. The OFF position will shut off the engine.

B. Throttle control (Fig. 3-1) — The throttle control lever is mounted off the RH operator handle. This lever controls the engine speed via a cable. Push the lever forward to increase engine speed and pull it rearward to decrease engine speed.

C. Cutting reel drive lever (Fig. 3-1) — This lever engages the cutting reel. Push the lever forward to engage the cutting reel and pull it back to disengage the cutting reel. **NOTE:** The cutting reel will rotate ONLY when the traction drive is engaged.

D. Traction drive lever (Fig. 3-1) — This lever engages the traction drive. Push the lever forward to engage the traction drive, and pull it back to disengage the traction drive. **NOTE:** If cutting reel drive lever is in the engaged position, the cutting reel will begin rotating

when the traction drive is engaged.

E. Brake lever (Fig. 3-1 & Fig. 3-2) — The brake lever is mounted off the LH operator handle. This brake has two levers. The **longer lever** is pulled to engage the brake. To set the park brake, pull this long lever back toward the handlebar until the park brake lever snaps into the locked position. Release the long brake lever, and the park brake is set. To release the park brake, pull on the **shorter park brake lever** and the long brake lever returns to the released position

F. Choke control (Fig. 3-3) — The choke is controlled directly on the engine. As the decal indicates, the choke is on when the lever is pushed to the forward direction of the machine, and off when the lever is pulled to the rear. Choke should only be used when starting the engine, and shall remain off when in normal operation.

G. Fuel valve (Fig. 3-3) — Push fuel valve lever forward to open fuel valve and push lever rearward to shut fuel valve off. **IMPORTANT:** Fuel valve should be shut off when engine is not running and machine is stopped.

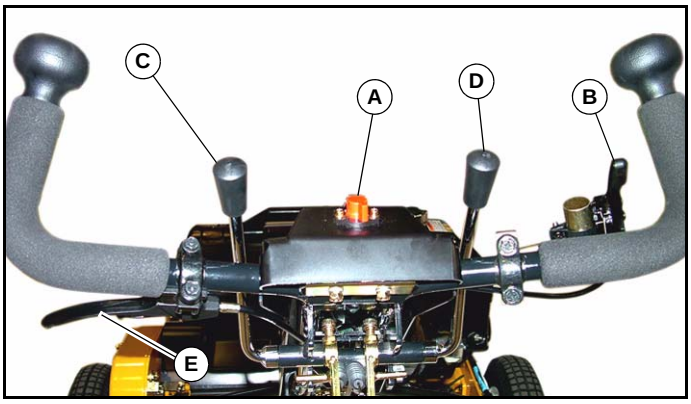


Fig. 3-1

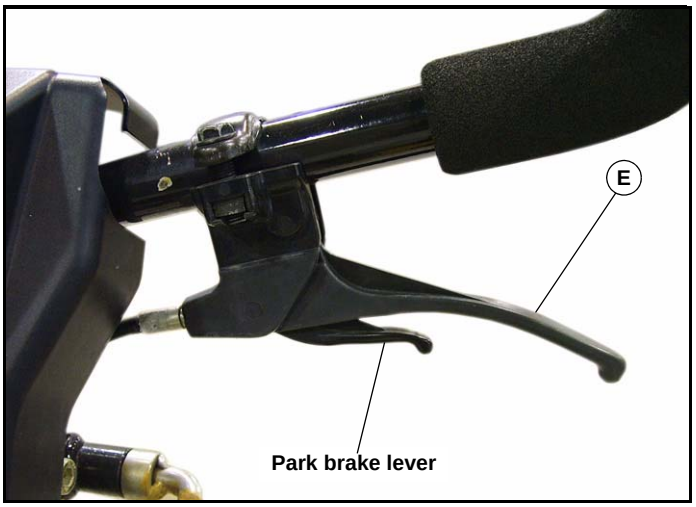


Fig. 3-2

Electrical - Engine wiring

A. Engine switch (Fig. 3-4) — There is an "ON - OFF" switch located on the front of the engine. This switch is not used and shall remain in the off position.

B. Wire lead - engine switch (Fig. 3-4) — This wire is not used and shall remain unplugged.

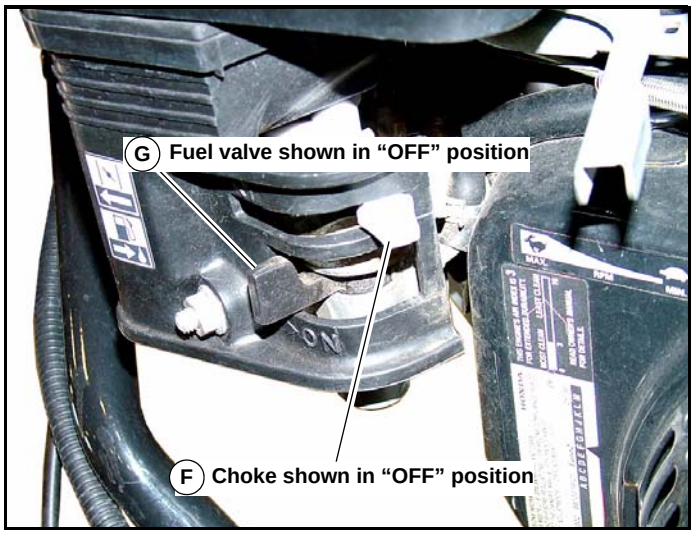


Fig. 3-3

C. Engine coil kill wire (Fig. 3-4)

D. Ignition switch wire (Fig. 3-4) — This single green wire connects to the ignition switch located at the operator handlebars. It is to remain plugged into the female bullet connector from engine coil kill wire **at all times.**

E. Braided wire loom - optional light power (Fig. 3-4) — These wires provide power to the optional light kit. Leave bundled with the tape in place if light kit is not installed.

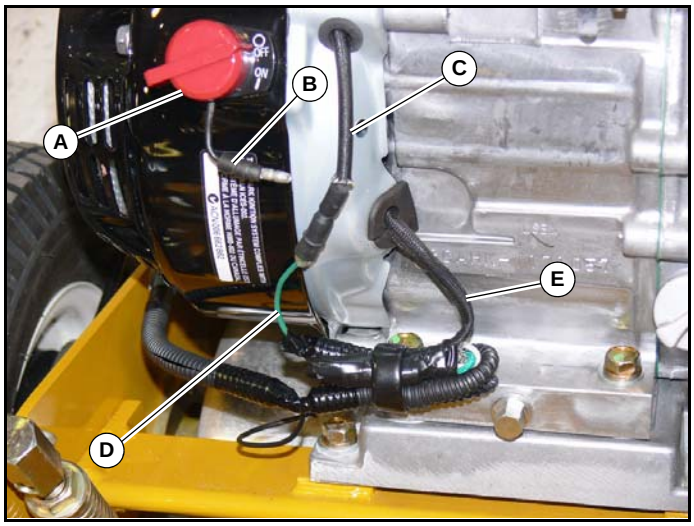


Fig. 3-4

Grass catcher

When attaching the grass catcher make sure that the catcher's mounting pins are seated firmly in place on the mower. Make sure that it is down in the positioning slots as far as it will go and is not sitting at an angle. Fig. 3-5 & Fig. 3-6

WARNING: Attach the grass catcher prior to starting the engine to prevent injury. Grass catcher should be attached to machine at **all** times when in operation!

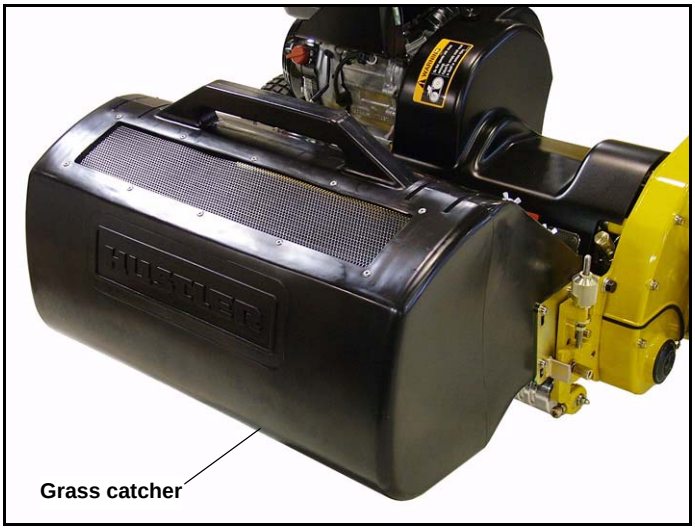


Fig. 3-5

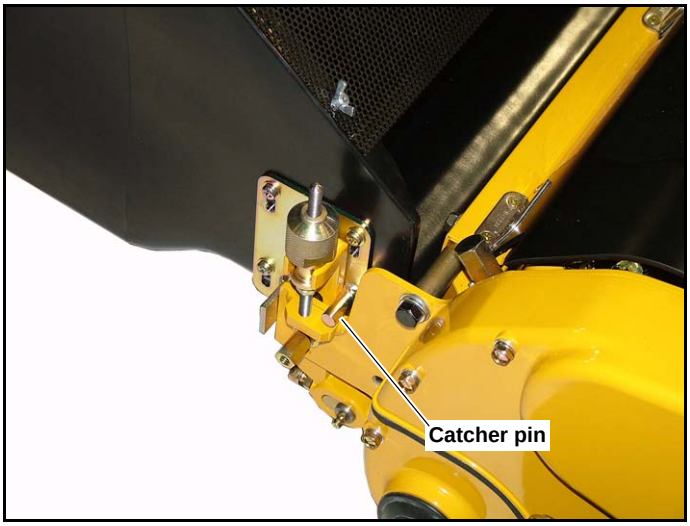


Fig. 3-6

Stand setting

The unit is equipped with a stand to raise the unit's drive roller off the ground to allow the unit to be worked on or the optional transport wheels to be installed.

To raise the machine (Fig. 3-7):

1. Park the unit on a flat, level surface, shut off engine and set the brakes.
2. Place both hands on the machine's handles and one foot on the stand.
3. Push the stand down, with one foot, until it contacts the ground.
   NOTE: Make sure to keep pressure on the stand as it can spring back and hit the operator's foot or leg.
4. While holding the stand in place, pull back on the handles until the machine pivots up and back onto the stand. The machine will then be supported by the stand and the front roller.
5. Place a block in front of the front roller to prevent the machine from moving forward and releasing the stand.

To lower the machine (Fig. 3-7):

1. Place both hands on the machine's handles and one foot on the stand.
2. Press down on the stand and push the machine forward. The stand will release. **Do not release pressure from the stand until the stand is fully raised to prevent injury to the operator's foot or leg.**

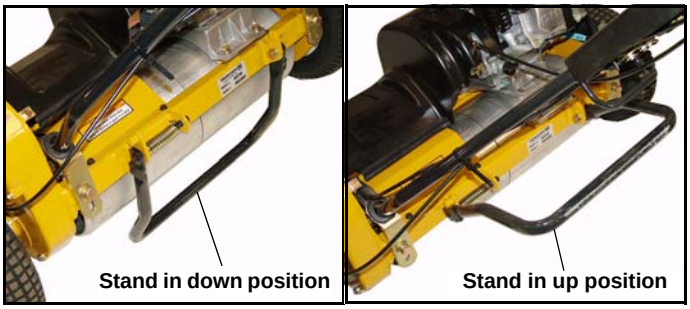


Fig. 3-7

Transport wheels (optional)

A transport wheel option is available for the Model 50. These wheels are used when transporting the unit from one location to another or when loading on a trailer or truck.

To attach the wheels use the following procedure:

1. Raise the unit using the stand setting procedure outlined elsewhere in this manual.
2. Hold the transport wheel with one hand while rotating clockwise on the locking lever with the other hand. Fig. 3-8
3. Align the three holes in the wheel with the three bolt heads on the axle hub. Slide the wheel onto the shaft and release the locking lever. It should lock in place on the shaft. Fig. 3-9
4. Repeat for other side.
5. Lower the machine per the stand setting procedure outlined elsewhere in this manual.

To remove the wheels use the following procedure:

1. Raise the unit using the stand setting procedure outlined earlier.
2. Hold the transport wheel with one hand while rotating clockwise on the locking lever with the other hand.
3. Slide the wheel off the shaft and release the locking lever.
4. Repeat for other side.
5. Lower the machine per the stand setting procedure outlined elsewhere in this manual.

Safety Interlock circuit operation

The safety interlock system on this machine does not allow the engine to be started when the traction drive is engaged. This system must be checked daily to make sure it is working properly.

1. Park the machine on level ground and pull it up on the stand to keep the traction drive drum (and wheels if equipped) raised off the ground.
2. Make sure the park brake is disengaged.
3. Engage the traction drive lever. Set the ignition switch to the run position.
4. Try to start the engine. The engine should NOT start. If the engine starts, then the safety interlock switch needs to be checked to make sure it is adjusted properly or the

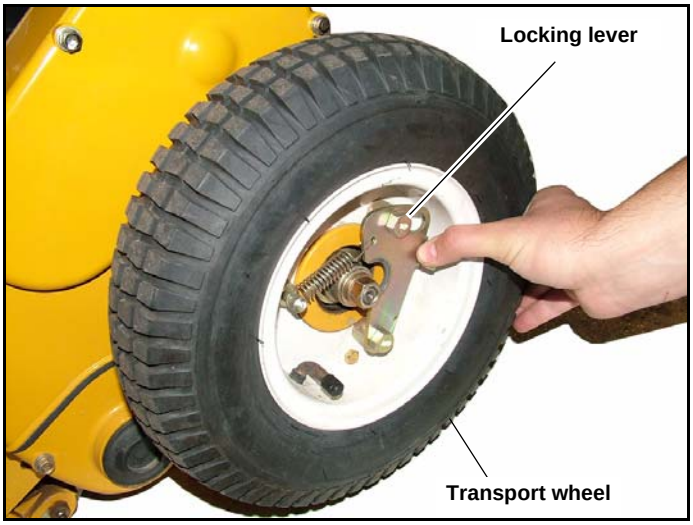


Fig. 3-8

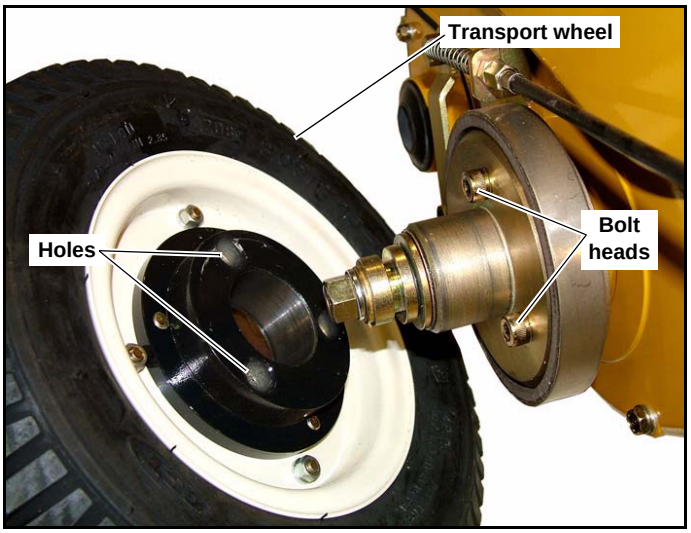


Fig. 3-9

problem identified and fixed.

Contact your dealer if you cannot identify and fix the problem.

Do not operate the machine if the safety interlock circuit is not working properly.

Engine starting

The Model 50 safety interlock system is designed to protect the operator and others from accidental injury due to unintentional engine starting. The engine will not start until:

A. Traction drive lever is in the "Disengaged" position.

B. The ignition switch is turned to the "RUN" position.

WARNING: The safety interlock system must not be disconnected or bypassed.

The following steps are the correct procedures for starting the engine. If difficulty is encountered, contact the Authorized Hustler Dealer in your area.

1. Before starting mower, perform daily pre-operation checking.
2. Make sure the traction drive lever and the cutting reel drive lever are in the disengaged position.
3. Attach the grass catcher.
4. Turn the fuel shutoff valve to the "open"or "on" position.
5. Use choke when engine is cold, or if warm engine fails to start within 5 seconds of cranking. Avoid flooding and operate engine without choking as soon as possible.
6. Set throttle at approximately 1/2 open position.
7. Rotate ignition switch to the "RUN" position. Pull engine recoil start rope.
   NOTE: Pull the recoil start rope to about 4/5 of the maximum length of the rope. Allow the starter rope to return slowly to the recoil housing.
8. Allow the engine to idle a few minutes before advancing the throttle and operating the unit.
9. Before stopping the engine, place the traction drive lever in the disengaged position, disengage the cutting reel drive, and throttle back to 1/2 throttle for a couple of minutes; then rotate ignition switch counter-clockwise to the OFF position.
10. Turn the fuel shutoff valve to the "closed" position.

WARNING: Never leave the machine unattended when the engine is running.

General operation

IMPORTANT: Do not operate or transport the mower using the drive drum on any surfaces other than the turf to be mowed. When transporting, always use the transport wheels (optional) or a transport vehicle/trailer to move the mower.

Keep cutting reel knives and bedknife sharp and make sure the clearance between the cutting reel and bedknife is properly adjusted prior to each mowing.

Check the height of cut before each mowing to make sure it is properly adjusted and set evenly.

Mowing

DANGER: Prior to operating the unit the operator should be thoroughly familiar with the proper use and operation of the equipment, should have read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An untrained and inexperienced operator should not mow on slopes or on uneven terrain.

WARNING: Do not operate the equipment while wearing sandals, tennis shoes, sneakers, shorts or any type of loose fitting clothing. Always wear long pants, safety glasses and safety shoes when operating this machine.

WARNING: Never direct discharge of material from mower towards bystanders. Do not operate the mower without the grass catcher in place. Fig. 3-5

WARNING: Make sure there are no bystanders close to the unit, especially in front of the machine, when the traction drive lever is engaged. When the traction drive lever is engaged the machine will immediately move forward.

WARNING: Attach the grass catcher prior to starting the engine to prevent injury. **Do not** operate the unit without the grass catcher.

IMPORTANT: Before mowing, check to make sure the cutting reel knives and bedknife are sharp and clearance between the reel and bedknife is properly adjusted. Do not operate the unit with the cutting reel engaged for a long period of time when not cutting grass - this can damage the reel and bedknife. Grass provides a natural lubrication of the reel knives and bedknife.

1. Always check area to be mowed and remove any debris, rocks or other foreign objects. Take special note of locations of hazards or potential objects that could damage the mower or cause potential safety issues.
2. Check mower over to make sure it is operating properly, the grass catcher is properly attached and all the guards and shields are properly installed.
3. Transport the mower to the collar of the green. Remove the transport wheel (if attached).
4. To begin mowing, the throttle should be set at a speed where the operator feels comfortable operating the unit. Transport the mower to the collar of the green and position it in the direction to be mowed. Engage the cutting reel drive lever, raise the cutting reel by pushing the handles down and engage the traction drive lever. Set the cutting reel down at the proper location to start mowing and mow in a straight line.
5. There are marks located on each side of the grass catcher to indicate the mowing width. Align one of the marks with the outside edge of the uncut grass and mow using the mark as a guide. Fig. 3-10
6. To stop mowing at the end of the green when approaching the collar, disengage the cutting reel drive lever, drive off the green and disengage the traction drive lever.
7. To turn the unit at the end of a row, when approaching the end of the row, push down on the handles to raise the cutting reel and turn the mower by pivoting it on the traction drum. When the turn has been completed, locate the last row mowed and position the mower straight with the last row. Set the cutting reel down at the proper location to begin mowing the next row.
8. When the grass catcher becomes full, stop the mower and turn off the engine. Remove the grass catcher and dispose of the grass clippings in an appropriate location. Treat the grass clippings as combustible waste, keeping it away from any possibility of a fire hazard.

Transporting

Transporting the Model 50, using the optional transport wheels, under its own power, requires considerable skill. Practice maneuvering in an open area before attempting to drive it from one location to another.

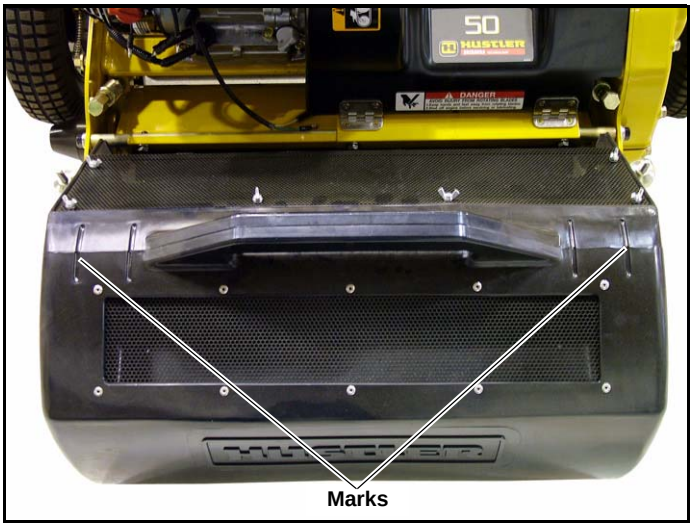


Fig. 3-10

WARNING: Make sure there are no bystanders close to the unit, especially in front of the machine, when the traction drive lever is engaged. When the traction drive lever is engaged the machine will immediately move forward.

WARNING: Do not drive the machine, without transport wheels, when it is on anything but turf if the transport wheels are not installed. The rear roller and the roller shaft may become damaged resulting in abnormal rotation.

1. Set the throttle to the “slow” position.
2. Grip the operator handle with one hand and engage the traction drive lever slowly.
3. As soon as the traction drive is engaged the machine will move forward. Grip the operator handles securely with both hands.
4. To stop the machine; disengage the traction drive lever then engage the brake.

Transporting the Model 50, on a vehicle, requires two or more people to load and unload the machine onto the transport vehicle.

WARNING: Make sure there are no bystanders close to the unit when loading or unloading to prevent injury.

WARNING: When loading or unloading onto a transport vehicle the engine must be shutoff. The unit must not be loaded or unloaded using it’s own power. It should be maneuvered manually.

WARNING: Do not attempt to grab the unit in the area near the cutting reel or bedknife when lifting the unit by hand. The reel and bedknife are very sharp and can cause injury.

WARNING: Take care that the machine does not fall from the loading ramp or off of the transport vehicle.

IMPORTANT: Attach the transport tires before the machine is loaded or unloaded onto a transport vehicle. Otherwise, the rear roller and it's shaft may become damaged.

To load or unload on a transport vehicle use the following procedure:

1. Make sure the traction drive lever and the cutting reel drive lever are in the disengaged position.
2. The engine is turned off and the fuel shutoff valve is in the "closed" position.
3. Use a full width ramp to load/unload the machine.
4. With one person controlling the brake lever, both people should carefully pull the machine up the ramp and onto the vehicle.

   IMPORTANT: Pull the machine, do not push it, up the ramp.
5. Secure the machine to the transporting vehicle.

MAINTENANCE & ADJUSTMENTS

Safe Servicing Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

Service

- ▲ Unless specifically required, **DO NOT** have engine running when servicing or making adjustments to mower. Park the machine on level ground. Always disengage traction drive, cutting reel drive, stop engine and disconnect spark plug wire before doing any maintenance. Wait for engine and all moving parts to come to a complete stop before adjusting, cleaning or repairing. Repairs or maintenance requiring engine power should be performed by trained maintenance personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area. Read and observe safety warnings in front of manual.
- ▲ Before working on any part of this machine, make certain engine cannot be accidentally started. Repairs or maintenance requiring engine power should be performed by trained personnel only.
- ▲ Except when changing or checking belt, always keep belt covers on mower for safety as well as cleanliness.
- ▲ Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires and excessive belt wear. Clean up oil or fuel spillage. Allow machine to cool before storing.
- ▲ **Clean flammable material from machine. Prevent fires by keeping the top of the unit, engine compartment and exhaust area clean of accumulated trash, grass clippings, and other debris. Always clean up spilled fuel and oil.**
- ▲ Always wear adequate eye protection when servicing the unit and removing accumulated debris.
- ▲ Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive.
- ▲ Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.
- ▲ Never remove fuel cap or refuel machine while engine is running; never refuel near an open flame or near devices which can create a spark. Allow the engine to cool down before refueling. Refuel outdoors. Never refuel or drain the fuel from the machine indoors.
- ▲ Never run the engine in an enclosed area unless exhaust is vented to the outside. Exhaust gases contain carbon monoxide which is odorless and deadly poison.
- ▲ Never attempt to make any adjustments or repairs to the traction drive system or reel while the engine is running or cutting reel drive is engaged. Reel knife cannot be seen and are located very close to the cutting reel housing. Fingers and toes can be cut off instantly. Repairs or maintenance requiring engine power should be performed by trained maintenance personnel only.
- ▲ Be careful during adjustment of the machine to prevent entrapment of the fingers between reel and fixed parts of the machine.
- ▲ Never work under the machine or attachment unless it is safely supported. Make certain machine is secure.
- ▲ Do not touch hot parts of machine. Be careful of hot muffler.
- ▲ Keep nuts and bolts tight, especially the bedknife attaching bolts. Keep equipment in good working condition.
- ▲ Never tamper with safety devices. Check their proper operation regularly.
- ▲ Stop the engine before removing the grass catcher. Turn off the engine and be sure the cutting reel has stopped before cleaning.
- ▲ Use caution when cleaning around cutting unit. Wear gloves and use the proper tools to clean debris from the reel area.
- ▲ Grass collection system components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- ▲ Use only genuine Hustler replacement parts to ensure that original standards are maintained

Introduction

WARNING: Before working on the mower, make certain engine cannot be accidentally started. Shut engine off and disconnect spark plug wire. Repairs or maintenance requiring engine power should be performed by trained personnel only.

WARNING: Exercise caution when working around the cutting reel, the reel blades and bedknife are extremely sharp. Wearing gloves is advisable when working around or with the blades.

WARNING: Except when changing or checking belt, **always** keep belt covers on mower for safety as well as cleanliness.

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis. For more detailed information order the correct parts manual for your unit. Refer to the *Product Literature* section of this manual.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

WARNING: Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires, poor cut quality and excessive belt wear.

Torque values

For all torques refer to the Model 50 parts manual for standard torque chart. See the *Product Literature* section of this manual for ordering information.

For engine torque values, see engine owner's manual.

Lubrication

Use a SAE multi-purpose grease when lubricating this machine. Refer to the *Maintenance Locator Chart,* found elsewhere in this manual, for all lubrication points. .

To lubricate these points:

1. Wipe away all old grease and dirt from the lubrication fittings to prevent dirt or foreign material from entering as new grease is applied.
2. Use a high pressure grease gun to force in the new grease. Apply pressure until clean grease oozes from each lubrication point.
3. Wipe away any excess grease.

Fuel system

DANGER: Observe usual fuel handling precautions:
Do not smoke while refueling. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
Do not remove fuel cap or fill tank with engine running or while engine is hot. Clean up any gasoline spills.
Allow engine to cool before storing machine inside a building.
Keep fuel away from open flame or spark and store machine away from open flame or spark or pilot light such as on a water heater or other appliances.
Use extreme care when handling gasoline and other fuels. They are extremely flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.
Never refuel or drain the fuel from the machine indoors.
Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.
Store gasoline in an approved container and keep it out of the reach of children. Never buy more than a 30 day supply of gasoline.
Always place gasoline containers on the ground away from your vehicle before filling.
Do not fill gasoline containers inside a vehicle or on a truck or trailer bed with interior carpets or plastic truck bed liners. Always place gasoline containers on the ground away from your vehicle before filling.
When practical, remove gas-powered equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel such equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
Read and observe safety precautions elsewhere in this manual.

WARNING: Gasoline is harmful or fatal if swallowed.
Long-term exposure to vapors can cause serious injury and illness.
Avoid prolonged breathing of vapors.
Keep face away from nozzle and gas tank or fuel container opening.
Keep gas away from eyes and skin.
If fuel is spilled on clothing, change clothing immediately.

The fuel tank is located on top of the engine. Fig. 4-1

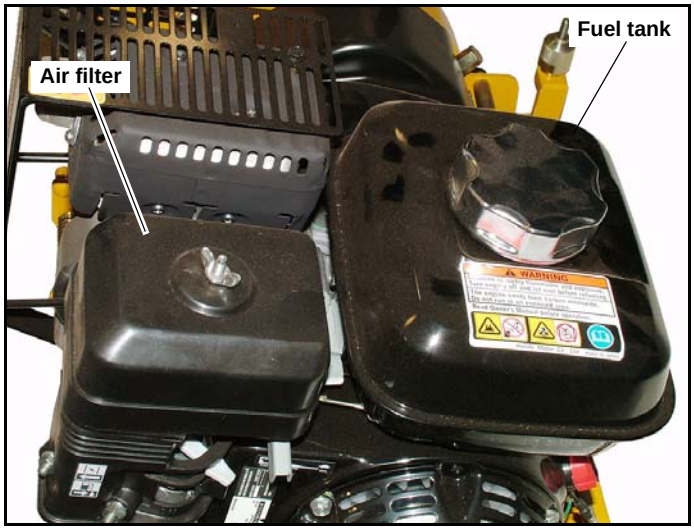


Fig. 4-1

Use regular unleaded gasoline with an octane rating of 87 or higher.

IMPORTANT: Never use methanol, gasoline containing methanol, or gasohol containing more than 10% ethanol because the fuel system components could be damaged. Do not mix oil with gasoline.

Engine oil

Check engine oil daily and after every 4 hours of operation. The machine must be setting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities. Fig. 4-2

Change the engine oil after the first 5 hours of operation, per the engine manufacturer's recommendations after that. If machine is being operated in extremely dirty conditions, then it is recommended oil be changed more frequently.

Engine air filter

Perform engine air filter maintenance per the engine's owner's manual. Fig. 4-1

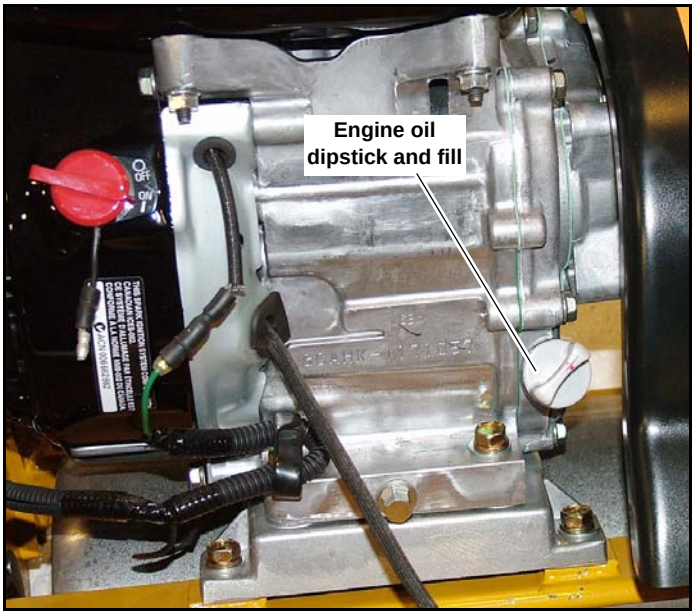


Fig. 4-2

General engine maintenance

Detailed instructions and recommendations for break-in and regular maintenance are specified in the Engine Owner's manual. Please refer to this manual for engine servicing, lubricating oil levels with quality and viscosity recommendations, bolt torques, etc. The engine warranty is backed by the manufacturer. Special attention should be paid to applicable data which will not be duplicated here.

Belts

Inspect belts frequently for wear and serviceability. (Fig. 4-3 & Fig. 4-4) Replace a belt that shows signs of severe cuts, tears, separation, weather checking and cracking, or burns caused by slipping. Slight raveling of belt covering does not indicate failure, trim ravelings with a sharp knife.

Inspect the belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace the pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt to get it on a pulley as this will cut or damage the fibers of the belt covering.

Keep oil and grease away from belts and never use belt dressings.

Main drive belt adjustment

1. Park the machine on level ground, disengage traction drive, cutting reel drive, stop engine and disconnect spark plug wire before proceeding with this adjustment. Pull the unit up on the stand.
2. Remove the front cover locking bolt and raise the front cover.
3. Turn the cable lock nut counter-clockwise to loosen. Fig. 4-5
4. Engage the traction drive lever. The spring should measure 3.38" (86mm) from hook to hook. (Fig. 4-6) Adjust the adjusting nut as necessary to obtain this spring length. Tighten the cable lock nut.
5. Disengage the traction drive lever.
6. With the traction drive lever disengaged, check to make sure there is no tension on the belts and that there is space between the belts and the idler tensioning pulley. Fig. 4-5
7. Lower the front cover and secure in place with the locking bolt.
8. Lower the unit to the ground from the stand, reconnect the spark plug wire onto the spark plug, make sure the traction drive lever is disengaged, and start the unit. Test to make sure that the main drive belt is engaging properly and the belts are not slipping.

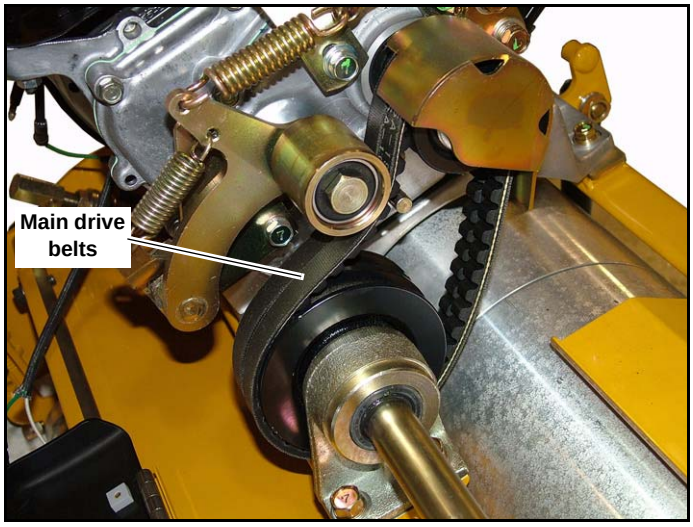


Fig. 4-3

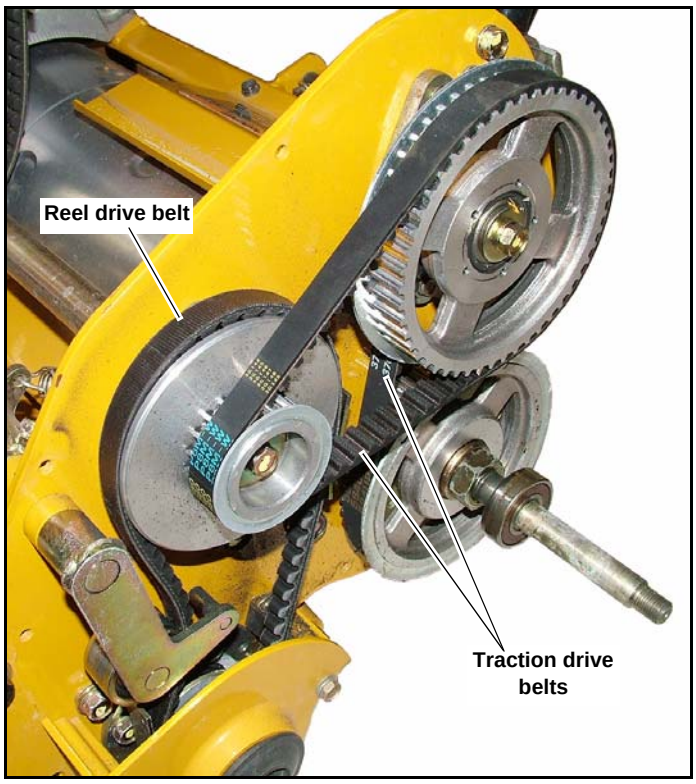


Fig. 4-4

NOTE: The cable may also be adjusted at the traction drive lever end. Adjust here if more adjustment is necessary and can not be attained at the drive belt end.

Reel drive belt adjustment

1. Park the machine on level ground, disengage traction drive, cutting reel drive, stop engine and disconnect spark

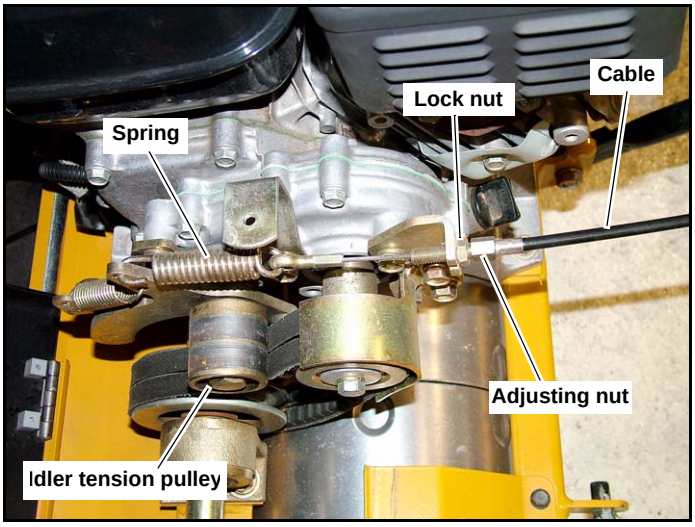


Fig. 4-5

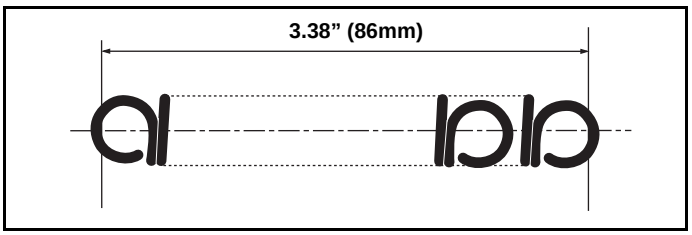


Fig. 4-6

plug wire before proceeding with this adjustment. Pull the unit up on the stand.

2. Remove the front cover locking bolt and raise the front cover.
3. Turn the cable lock nut counter-clockwise to loosen. Fig. 4-7
4. Engage the cutting reel drive lever. The spring length should measure 3.38" (86mm) from hook to hook. (Fig. 4-6) Adjust the adjusting nut as necessary to obtain this spring length. Tighten the locknut.
5. Disengage the cutting reel drive lever.
6. Lower the front cover and secure in place with the locking bolt.
7. In an area of suitable turfgrass where the unit can be tested, make sure no debris, obstructions, or bystanders are present. Test the unit to make sure the cutting reel is working properly and the cutting reel drive belt is engaging and disengaging correctly.

Adjusting the bedknife to cutting reel clearance

WARNING: Always disengage traction drive, cutting reel drive, stop engine and disconnect spark plug wire before performing maintenance on the unit. Wait for engine and all moving parts to come to a complete stop

WARNING: Use the blade alignment tool when turning the reel blade. Do not touch the reel with your hand.

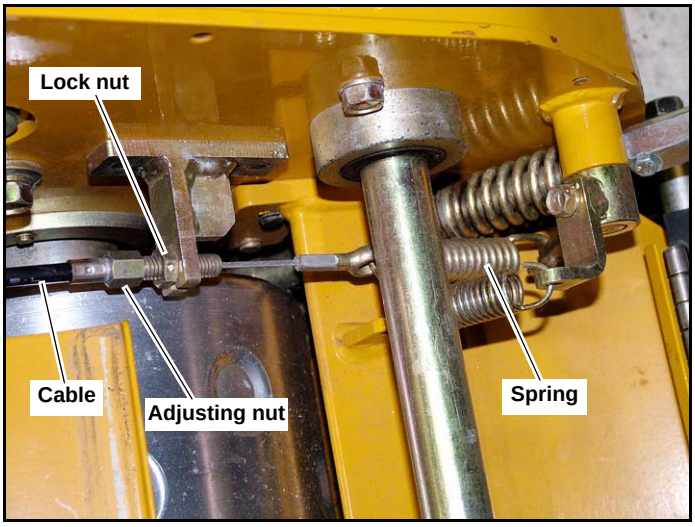


Fig. 4-7

1. Park the machine on a level surface so it will not roll. Set the park brake.
2. Tilt the machine back and secure into position to easily access the bedknife and cutting reel.
3. In order to check the cutting reel to bedknife clearance, tear newspaper strips approximately 2" (50mm) wide x 12" (300mm) long.
4. Check the bedknife to reel clearance. Insert a strip of newspaper between the cutting reel knife and bedknife on the right hand end of the cutting unit. **Turn the reel in the cutting direction using the blade rotating tool to cut the newspaper.** If the reel knives and bedknife are sharp, and the clearance is properly adjusted, the newspaper strip should shear off cleanly. When properly adjusted, the clearance should be very light bedknife to reel contact, up to 0.002" (0.05mm) clearance. **Do not** adjust bedknife to contact cutting reel excessively. Fig. 4-8
5. Check the center and left hand end of the reel by the same process of shearing the newspaper strip.
6. If the clearance needs to be adjusted, locate the bedknife adjusting screws on the RH and LH sides of the cutting unit. (Fig. 4-9) To adjust the bedknife closer to the cutting reel (decreasing clearance), turn the adjusting screw clockwise. To adjust the bedknife away from the cutting reel (increase clearance), turn the adjusting screws counterclockwise.
7. Once adjusted, repeat step 4 to check clearance and cut quality at the RH, LH, and center locations of the reel.
8. If good cut quality cannot be achieved, but the bedknife to cutting reel clearance is properly adjusted, then the bedknife and reel need to be backlapped or ground to restore the edges.

Mowing height adjustment

WARNING: Always stop the engine and disengage the traction drive and cutting reel drive before adjusting the mowing height.

Here we describe how to adjust the cutting height to .10” (2.54 mm).

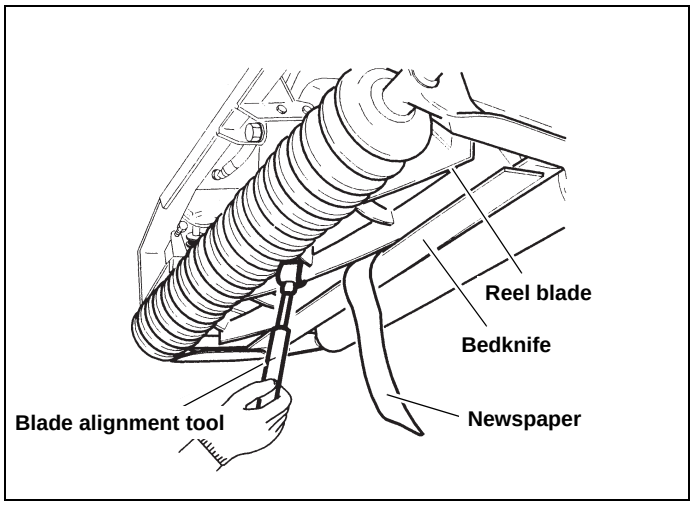


Fig. 4-8

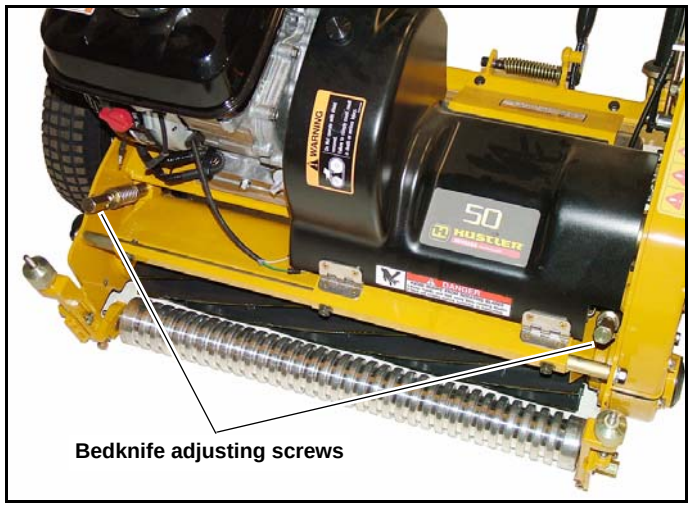


Fig. 4-9

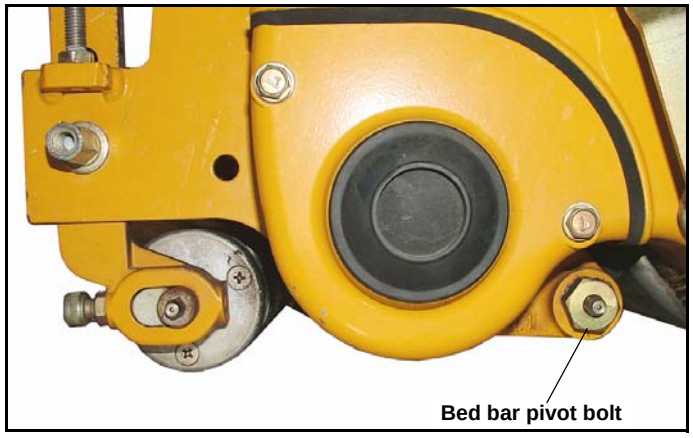


Fig. 4-10

1. Locate the height of cut bar and loosen the locknut. Adjust the screw to the desired height of cut by measuring the distance between the top of the HOC bar and the bottom of the screw head as shown. (Fig. 4-11 & Fig. 4-12) Once adjusted, tighten the lock nut.
2. Park the machine on a level surface. Tilt it back to provide good access to the bedknife, front roller, and drive roller. Secure the machine in position so it will not move.
3. Loosen the height adjustment lock nut on both sides. (Fig. 4-13)
4. Loosen the jam nut on the threaded adjusting rod on both sides. (Fig. 4-13)
5. Raise the front roller by turning the roller height adjusting knobs on both sides in the clockwise direction.
6. On the right hand side, install the HOC bar with the rear of bar pressed up against the drive roller in the rear, then hook the bolt head over the bedknife cutting edge. The HOC bar should be perpendicular to the bedknife. Fig. 4-14 & Fig. 4-15
7. Lower the front roller down, evenly turning both adjusting knobs, to the HOC bar so it comes into contact with the HOC bar, but still allows the HOC bar to be removed.
8. Install the HOC bar on the LH side and adjust the front roller as necessary to come in contact with the HOC bar. Re-check the center, RH and LH sides again to make sure the front roller is properly adjusted and the height is set correctly across the full width of the unit.
9. Tighten the jam nuts on the threaded adjusting rod on both sides.
10. Tighten the height adjustment locknuts on both sides..

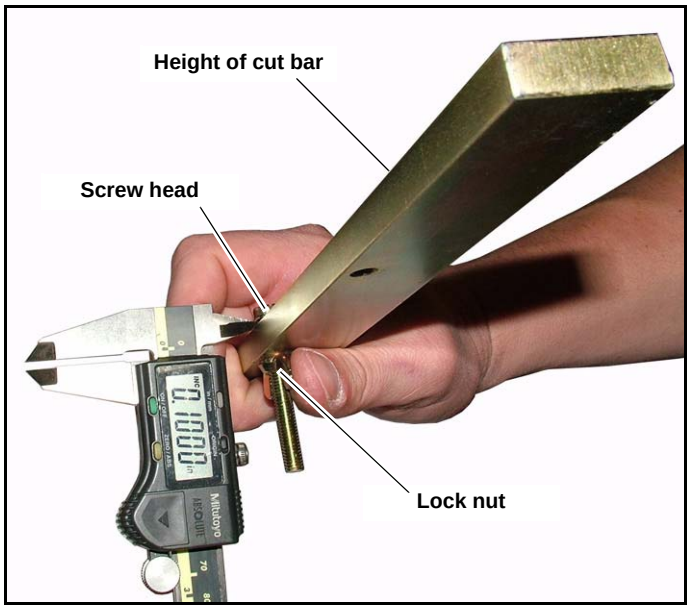


Fig. 4-11

Backlapping operation

WARNING: Always stop the engine and disengage the traction drive and cutting reel drive before back-lapping.

WARNING: When using the backlapping machine and turning the reel blade do not allow your hand, foot, or any part of your clothing, near the cutting range.

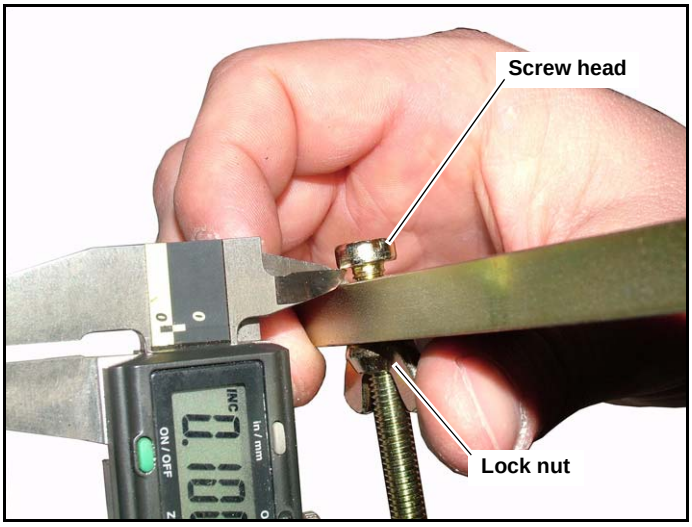


Fig. 4-12

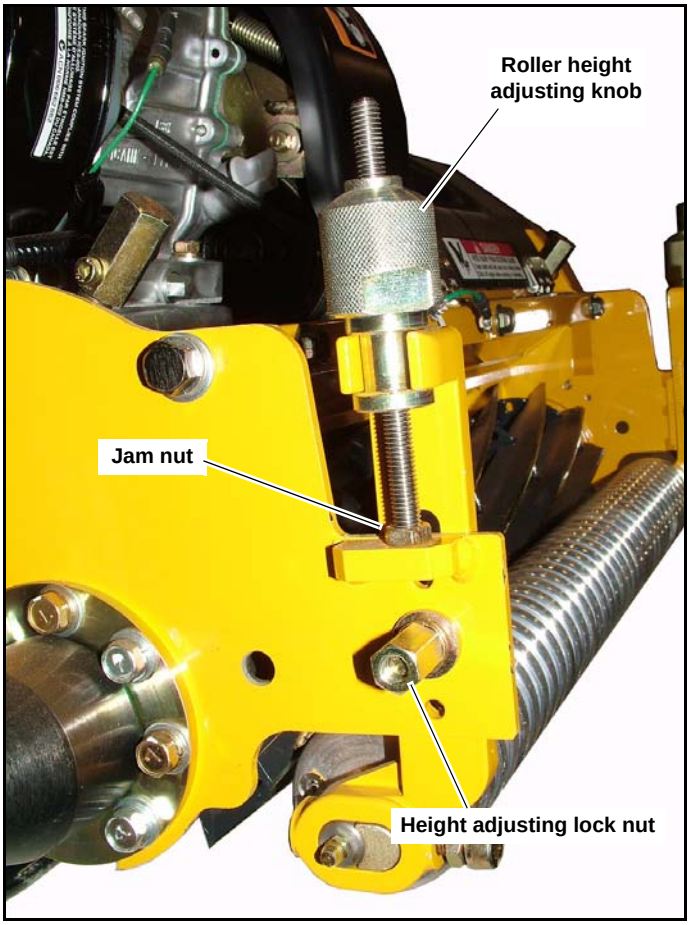


Fig. 4-13

WARNING: Apply abrasive to the reel blade with a brush, not your fingers. Never use a short handle brush to apply backlapping compound. Be sure to coat the reel with backlapping compound using a brush with an extension handle of at least 16 inches (40.64cm).

DANGER: Contact with the reel during backlapping will cause personal injury. Always use a blade rotating tool to rotate the reels.

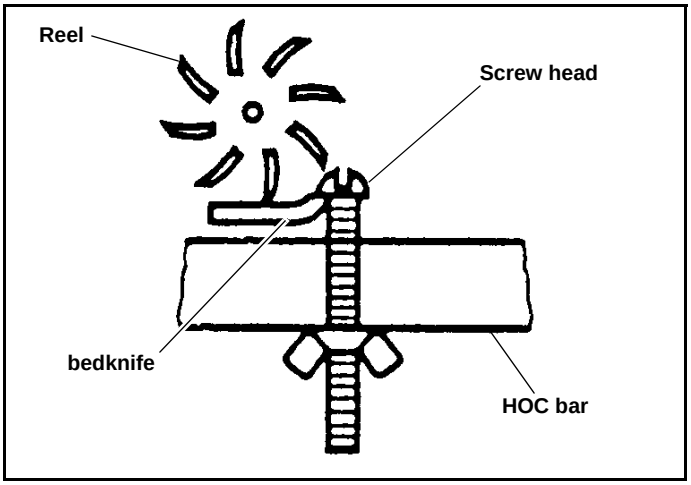


Fig. 4-14

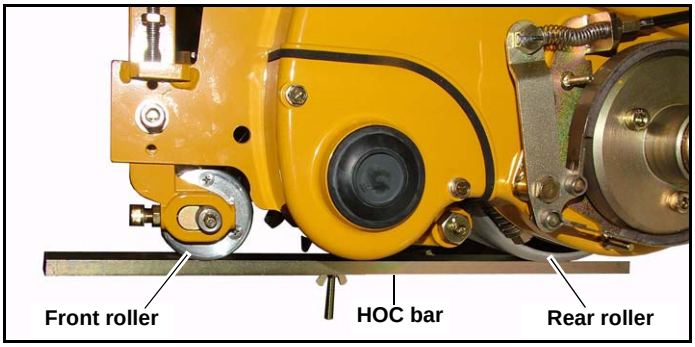


Fig. 4-15

IMPORTANT: For backlapping, always use lapping compound #180 to #220.

WARNING: Stay clear of the reel knife during the backlapping procedure.

For backlapping, prepare 2.0" (50 mm) wide strips of newspaper and a lapping compound mixed with oil or a neutral detergent as abrasive.

The mixing ratio is based on volume.

Lapping Compound 1: Oil (neutral detergent) 3 to 4

1. Place the machine on a flat, level surface. Tilt it backwards to provide good access to the cutting reel and bedknife. Secure machine into position so it will not move.
2. Remove the cutting reel end cap located on the left side of the cutting reel to expose the reel blade shaft bolt head. Fig. 4-16 & Fig. 4-17
3. Setup the backlapping machine and attach it to the cutting reel as explained in the backlapping machine's installation instructions.
4. Once the backlapping machine is setup and in the correct position, turn the backlapping machine on momentarily to make sure it is rotating in the backlapping direction (opposite of the cutting direction).
5. Make sure the backlapping machine is turned off, and the cutting reel is stopped.
6. Determine the cutting quality of cutting unit. Adjust the

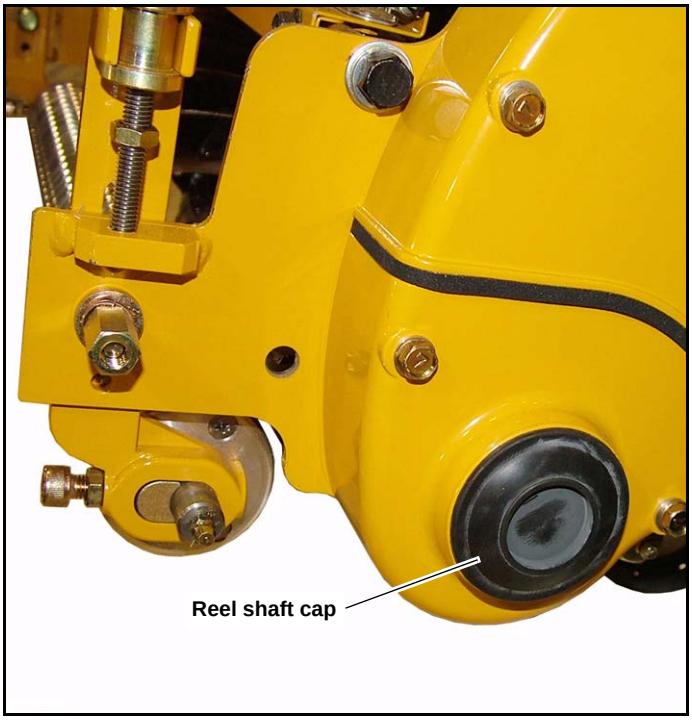


Fig. 4-16

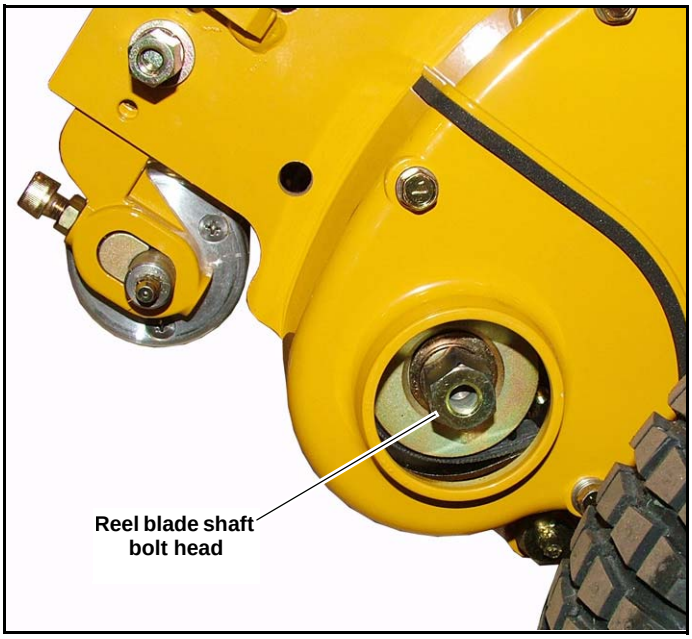


Fig. 4-17

reel to bedknife clearance so the bedknife is parallel and just touching the reel. In very small increments, back the bedknife off EVENLY on both sides (.001" - .002")(.03mm - .05mm) so it has minimal clearance from the reel and is not making contact. Insert a piece of newspaper between the rotary blades of the reel and the bedknife. Turn the reel with the blade rotating tool in the cutting direction to cut the newspaper and test the cut quality. The newspaper should be cut cleanly without pinching or tearing. Note the cut quality to determine the need for clearance adjustment and required backlapping.
NOTE: Test the cut quality for each blade of the reel.

7. Start the backlapping machine. The reel should begin rotating in the backlapping direction

WARNING: Be sure to stay clear of the cutting unit and use extreme caution around rotating reels!

8. **Be sure to have a qualified mechanic show you how to do this for the first time before you attempt this on your own.** Using a minimum 16" (40.64cm) long handled brush, apply backlapping compound to the reel starting at one end and working toward the other. **Never use a short handled brush.** Fig. 4-18
9. Once you have completed the initial backlapping of the reel, the reel to bedknife clearance may need to be adjusted. Turn the backlapping machine off, be sure all moving parts come to a rest, and reset the reel to bedknife clearance. Once you have reset the reel to bedknife clearance, repeat steps 8 and 10.
10. Repeat steps 8 thru 11 until you have achieved the desired results and the reel/bedknife are uniformly backlapped across the full width of the reel. You will hear that the reel is making contact all the way across by the sound when you move the brush across the spinning reel when applying the compound.
11. Once the cutting unit has been backlapped, the cutting unit, reel, and bedknife must be completely cleaned and all lapping compound removed. **Do not** allow the cutting unit to be operated in the cutting direction until they are completely clean and free of lapping compound.
12. With the backlapping machine running in the backlapping direction at low idle, use a water hose to remove all lapping compound on the reel, bedknife and cutting unit assembly components.
    IMPORTANT: Do not use high pressure washer when removing lapping compound.

WARNING: Be sure to stay clear of the cutting unit and use extreme caution around the rotating reel!

13. After the unit is completely clean, turn off the backlapping machine.
14. Re-adjust and/or check the reel to bedknife clearance to determine that the reel is cutting properly.
15. Remove the backlapping machine and reinstall the reel shaft cap.

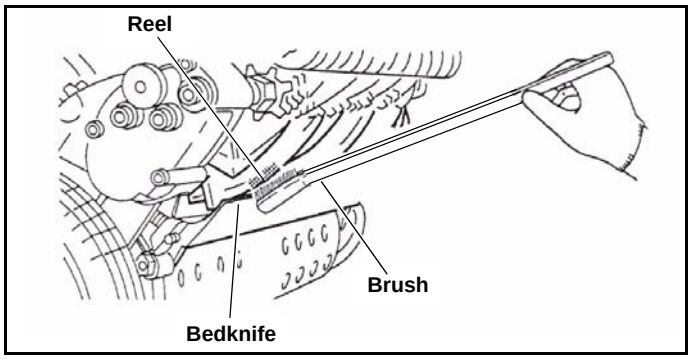


Fig. 4-18

Maintenance Schedule

Hustler Model 50 Greens Mower
Maintenance Schedule
Refer to Maintenance Locator Chart

SERVICE AT INTERVALS INDICATED	WEEKLY OR 50 HOURS	MONTHLY OR 100 HOURS	ANNUALLY OR 300 HOURS
Verify safety start interlock system	Prior to each use		
Visually inspect unit for loose hardware and/or damaged parts	Prior to each use		
Check oil level, engine (1)	Prior to each use or every 4 hours		
Check air filter (2)	Prior to each use or every 4 hours		
Check fuel level	Prior to each use		
Check cutting reel and bedknife clearance and sharpness	Prior to each use		
Replace air filter element	As needed		
Clean machine	Daily		
Grease all lubrication points (6 places)	X		
Change engine oil (1)	X		
Clean cylinder & head fins (a)	X		
Clean engine exterior (a)	X		
Clean & regap spark plugs (a)	X		
Check belt tension and condition		X	
Change fuel filter			X
Replace spark plug			X

NOTES:

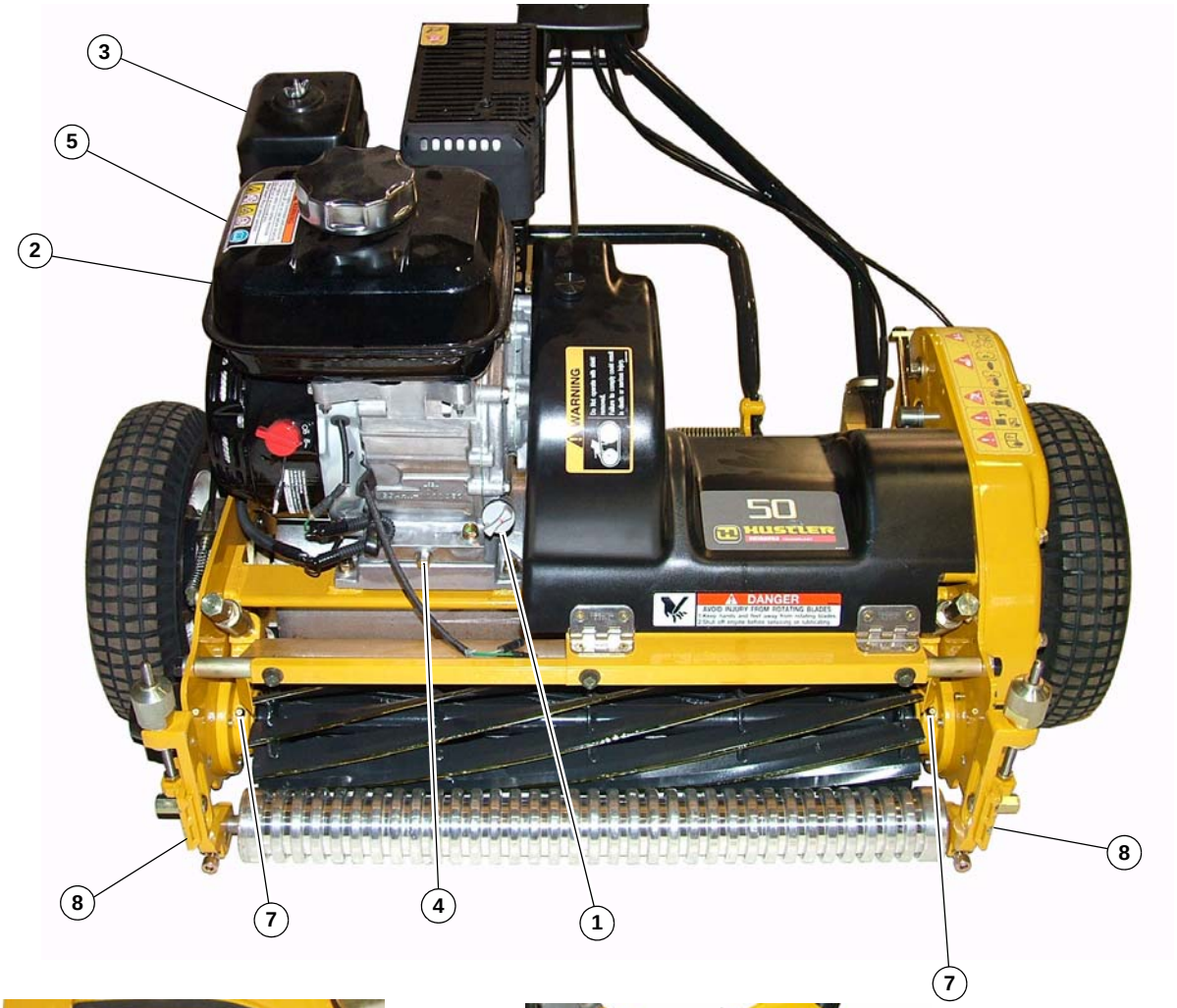
1. Initial oil change is after 5 hours of operation. Thereafter, change oil per engine manufacturer's recommendations. Refer to engine owner's manual for recommendations and other engine maintenance. Change more often under dusty or dirty conditions and during hot weather periods.
2. Service more often under dusty or dirty conditions.

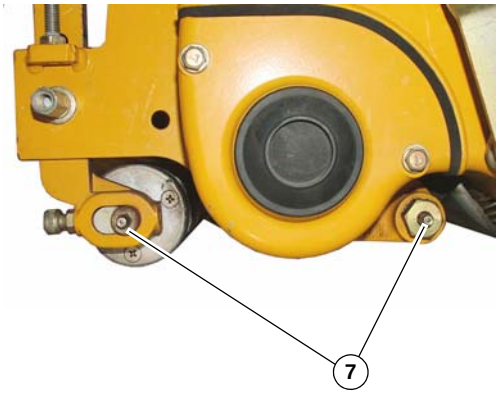
REFERENCES:

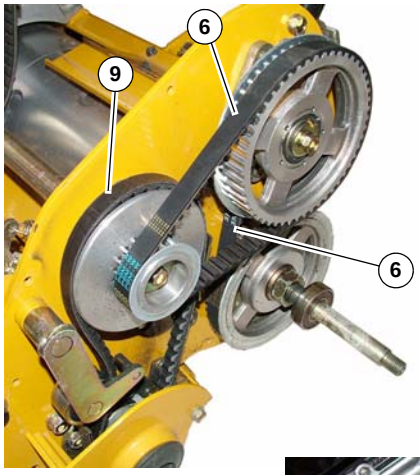
a—Refer to Engine Owner's Manual

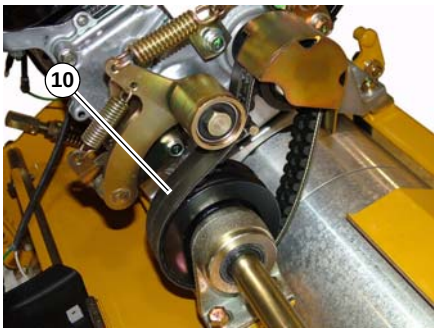
NOTE: After completing maintenance cycle (50 hours), repeat cycle.

Maintenance Locator Chart









1. Engine oil fill & dipstick
2. Fuel filter
3. Engine air cleaner
4. Engine oil drain plug
5. Fuel tank
6. Traction drive belt (2)
7. Grease zerk (6 places)
8. Front roller mount bracket
9. Cutting reel drive belt
10. Main drive belts (2)

STORAGE

When storing the unit at the end of the mowing season, the following steps should be taken to ensure readiness for the next mowing season.

1. Remove all grass, dirt, and trash from mower. Clean tractor and mower and touch up all scrapes with Hustler spray paint.
   IMPORTANT: Wash the machine with a mild detergent and water. Do not pressure wash the machine. Avoid excessive use of water, especially near the control panel and engine.
2. Install new air filter per Engine Owner's Manual.
3. Check thoroughly for any worn or damaged parts that need replacing and order them from your dealer.
4. Thoroughly lubricate machine, according to lubrication instructions.
5. Perform separate engine preparation as listed below.
6. Store tractor in a clean, dry place.

Preparation of engine for storage

When engine is to be unused for long periods, proceed as follows:

1. Run engine for a minimum of 15 minutes.
2. Drain oil from crankcase while engine is still warm.
3. Refill with fresh oil of proper viscosity.
4. Drain fuel tank and run the engine until it stops from lack of fuel. Gasoline evaporates if left in carburetor for long periods, forming gum and varnish deposits in carburetor. These deposits will cause engine flooding and loss of power.
5. Remove and replace fuel filter if not done in previous 100 hours.
6. Remove spark plug and pour a tablespoon of engine oil into the spark plug hole, Install plug, but do not reconnect plug lead.
7. Pull recoil starter handle and stop it at the position where it feels heavy and resistant. This is to distribute oil over cylinder walls and valve mechanism.
8. Clean exterior surface of engine. Spread a light film of oil over any exposed metal surfaces of engine that are subject to corrosion.
9. Clean dirt and chaff from cylinders and fins, blower housing and muffler.
10. Check oil filler cap and fuel tank cap to make certain they are securely in place.
11. Refer to engine manual for more information.

Preparation of cutting unit for storage

1. Make sure cutting unit is clean and dry.
2. Grease all reel grease fittings.
3. Backoff reel to bedknife clearance adjustment.
4. Spray cutting reel and bedknife with a rust inhibitor.

New season preparation

Before starting the machine following post season storage, the following servicing is required:

1. Clean tractor, removing trash and dirt accumulation.
2. Check engine oil level.
3. Check safety interlock system to make sure it is functioning properly.
4. Fill fuel tank with fresh gasoline. Run machine at half speed for 5 minutes, checking operation of machine. Stop engine and check for oil leaks, loose hardware and so forth.
5. Tighten any bolts that have loosened and make sure all hair pins, cotter pins and clevis pins are in place.
6. Check cutting reel knives and bedknife for sharpness.
7. Check the clearance between the cutting reel and bedknife for proper adjustment.
8. Install all safety shields and review safety precautions listed in this manual.
9. Refer to engine manual for more information.

PRODUCT LITERATURE

If you would like to view or print a copy of the Hustler Model 50 Greens Mower Parts Manual go online to www.hustlerturf.com and click on the *MANUALS* button.

TROUBLESHOOTING

SYMPTOMS	PROBABLE CAUSES	SUGGESTED REMEDIES
The engine will not start, starts hard or fails to keep running	No fuel or line plugged	Fill tank or replace line
	Fuel valve is turned off	Open the fuel valve
	There is incorrect fuel in the fuel system	Drain the tank and replace the fuel with the proper type
	There is dirt in the fuel filter	Replace the fuel filter
	Dirt, water or stale fuel in the fuel system	Contact your Hustler Dealer
	The choke is not on	Move the choke lever to ON
	Traction drive lever is engaged	Disengage traction drive lever
	Safety interlock system is malfunctioning	Contact Hustler dealer
Engine: Runs with continuous misfiring or engine runs unevenly or erratically	Numerous	See engine manual
Overheating	Air intake screen or cleaning fins clogged	Clean screen and fin
	For additional causes	See engine manual
High oil consumption	Numerous	See your dealer

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